

CLAIMS

What is claimed is:

1. A single-component or multi-component injection molding machine (1) comprising: a machine bed (2), a nozzle-side clamping plate (8) with thermoplastic injection nozzles firmly connected to said machine bed (2), a closing-side clamping plate (4) supported on said machine bed (2) so as to be movable relative to the nozzle-side clamping plate (8), said clamping plates (4, 8) each carrying a mold half (19, 20) and forming an injection-molding tool with mold cavities and at least one injection unit (10, 11) provided at the nozzle-side clamping plate (8) for supplying one or more thermoplastics to said injection nozzles, said mold half (19) on the closing-side clamping plate (4) being rotatable about an axis extending in the closing direction and also movable longitudinally along the axis of rotation of said molding plate (7a), a motor (31) received in the closing-side clamping plate (4) and a rotatable shaft (25) extending through the motor (31) for rotating the rotatable shaft (25) for the rotation of the mold half (19) disposed adjacent the closing-side clamping plate (4), said rotatable shaft (25) being supported in the motor (31) so as to be movable relative to said motor (31) in axial direction (a) together with said mold half (6) or parts thereof.

2. Injection-molding machine according to claim 1, wherein said rotatable shaft (25) is connected to an indexing turntable (7a) which forms part of, and is disposed in, the closing-side mold half (19) and which includes the mold cavities, said indexing turntable being rotatable and axially movable together with the rotatable shaft (25) relative to the closing side mold half.

3. Injection-molding machine according to claim 1, wherein the motor (31) is a hydraulic motor with a supply channel (32) and an outlet channel (33) for a fluid drive medium in the closing side clamping plate (4).

4. Injection-molding machine according to claim 1, wherein the motor (31) is so integrated into the closing-side clamping plate (4) that it is disposed flush with the outer surface (4a) of the closing-side clamping plate (4).

5. Injection-molding machine according to claim 1, wherein the motor (31) is so integrated into the closing side clamping plate (4) that, with a hydraulic motor, the pressure generated in the interior of the motor for providing the torque is accommodated by way of the closing-side clamping plate (4) and a sandwich arrangement of the closing side mold half (6).

6. Injection-molding machine according to claim 1, wherein said motor (31) projects from the engagement surface (4a) of the closing side clamping plate (4) for fixing a tool support plate (17) provided with a recess receiving the projecting end of the motor (31).

7. Injection-molding machine according to claim 1, wherein said motor (31) is an electric motor.

8. Injection-molding machine according to claim 1, wherein said motor (31) can be stopped in any angular position and the rotatable shaft (25) is axially movable to any desired axial position.

9. Injection-molding machine according to claim 1, wherein said motor (31) is so integrated into the closing-side clamping plate (4) that, with respect to the mounting surface of the closing-side mold half, is recessed for the centering of the closing side mold half.

10. Injection molding machine according to claim 1, wherein said motor (31) is disposed in a recess in the clamping plate, said motor (31) including a hub bearing for receiving a rotatable shaft (25) which extends through the motor (31), said motor rotating the rotatable shaft (25) in such a way that a mold half (6) or parts thereof connected to the closing side clamping plate (4) can be rotated and said rotating shaft (25) being movable in the motor (31) in axial direction (a) together with the mold half (6) or parts thereof.

11. Injection molding machine according to claim 1, wherein the motor (31) is a hydraulic motor.